September 25, 2001

D.T.E. 00-79

Petition of Western Massachusetts Electric Company for approval by the Department of Telecommunications and Energy of a three-year Energy Efficiency Plan for 2000-2002.

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FOR: WESTERN MASSACHUSETTS ELECTRIC COMPANY
Petitioner

I. INTRODUCTION

On October 18, 2000, Western Massachusetts Electric Company ("Company") filed with the Department of Telecommunications and Energy ("Department") its three-year Energy Efficiency Plan ("Plan") covering the period 2000-2002. The filing was made pursuant to G.L. c. 25, § 19, G.L. c. 25A, § 11G, Western Massachusetts Electric Company, D.P.U./D.T.E. 97-106 **(**1998**)**, and Order Promulgating Final Guidelines to Evaluate and Approve Energy Efficiency Programs, D.T.E. 98-100 (2000) ("DTE Guidelines"). The Department docketed this filing as D.T.E. 00-79.

On January 26, 2001, pursuant to G.L. c. 25A, § 11G, 225 C.M.R. § 11.00 et seq. and the DTE Guidelines at § 6.2, the Commonwealth of Massachusetts, Division of Energy Resources ("DOER"), filed a report on the Company Plan with the Department ("DOER Report"). The DOER Report concluded that the Plan is substantially consistent with the statewide energy efficiency goals required by G.L. c. 25A, § 11G, and with DOER's Guidelines for energy efficiency programs (DOER Report at 2). See Guidelines Supporting the Massachusetts Division of Energy Resources Energy Efficiency Oversight and Coordination Regulation 225 C.M.R. 11.00.

On March 26, 2001, the Department issued a notice requesting comments on the Plan and the DOER Report. No comments were filed. The Company responded to thirty-one Department information requests.[1]

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1 On its own motion, the Department moves the Plan and WMECo's 31 responses to Department record requests into the record of this proceeding. The responses are marked as (continued…)

II. STANDARD OF REVIEW

The Department is required to ensure that energy efficiency activities are delivered in a cost-effective manner utilizing competitive procurement processes to the fullest extent practicable. G.L. c. 25, § 19; G.L. c. 25A, § 11G. The Department has established guidelines that, among other things, set forth the manner in which the Department would review ratepayer-funded energy efficiency plans in coordination with DOER, pursuant to G.L. c. 25, § 19 and G.L. c. 25A, § 11G. D.T.E. 98-100.

DOER has the authority to oversee and coordinate ratepayer-funded energy efficiency programs, consistent with specified goals, and is required to file annual reports with the Department regarding proposed funding levels for said programs. G.L. c. 25A, § 11G; 225 C.M.R. §§ 11.00 et seq. If the DOER report concludes that ratepayer-funded energy efficiency programs are consistent with state energy efficiency goals, and if no objection to the DOER report is raised, the Department's review of the Plan is limited to cost-effectiveness issues and the use of competitive processes. D.T.E. Guidelines at § 6.4; 225 C.M.R. § 11.00 et seq.

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[1](…continued)
Exhs. DTE-1-1 through DTE-1-21; Exhs. DTE 2-1 through DTE-2-8; Exhs. DTE-3-1 through DTE-3-2. In addition, the Department incorporates by reference into the record of this proceeding the DOER Report. 220 C.M.R. § 1.10(3).

III. ENERGY-EFFICIENCY PROGRAMS

A. Summary of Programs

As shown in Table 1, attached to this Order, the Plan proposes overall energy efficiency budgets of approximately $15 million in 2000, $11 million in 2001, and $10 million in 2002 (Plan, Table 2).[2] The budgets provide for shareholder incentives based on performance,[3] as measured against the performance goals specified in the Plan for the 2000 program year (Plan at 8, Table 5).

The energy efficiency programs in the Plan, which serve both residential and commercial-industrial ("C/I") customers, seek to transform markets for energy efficiency products and to capture savings during new construction, major renovation, and equipment replacement (Plan at 1, 2). Many of these programs are regional in nature and co-ordinated with other utility companies to leverage resources from architects, designers, manufacturers, retailers, and marketers (Plan at 2). These regional programs target lighting, major home appliances such as clothes washers and water heaters, commercial cooling systems, industrial motors, compressed air systems, and commercial building codes (Plan at 2-3). The Company's retrofit programs provide customers with assistance in replacing functional equipment in their

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[2] G.L. c. 25, § 19 authorizes and directs the Department to require, for all electric consumers as of March 1, 1998, a mandatory (fixed) charge per kilowatt-hour ("KWH") for energy efficiency activities, including, but not limited to, demand-side management activities. The per KWH charges for the following (calendar) years are: 3.3 mills for 1998; 3.1 mills for 1999; 2.85 mills for 2000; 2.7 mills for 2001; and 2.5 mills per KWH for 2002. The Plan's programs are funded solely from these charges.

[3] Section 5.3 of the DTE Guidelines specifies the maximum incentives allowed.

homes and businesses with more efficient equipment (Plan at 35-38, 87-106, 119-123). The RFP program specifically invites energy service companies and the Company's customers to bid for installing energy efficient equipment at locations they identify, while a Municipal program targets energy use by local governments (Plan at 81-91).

B. Cost-Effectiveness

The Company calculated several types of benefits to its energy system from its programs, including the value of electric generation and capacity costs avoided, transmission and distribution costs avoided, and certain low-income benefits accruing to the Company (Plan, Tables 6-7; Exhs. DTE-1-6; DTE-1-7; DTE-1-10). DTE Guidelines at § 3.3.2. Similarly, the Company calculated several types of benefits specific to program participants, including the value of (1) reduced consumption of heating oil, natural gas, and water; (2) longer equipment replacement cycles and reduced waste disposal costs; and (3) several benefits specific to low-income participants, such as reduced disconnections for inability to pay (id.). Id. at § 3.3.3. The Company did not calculate participant benefits for six programs,[4] including the Municipal program, but is undertaking a study to quantify what it expects to be modest participant benefits for those programs (Exh. DTE-1-9). In addition, the Company has not yet included in its calculation of market transformation program benefits, savings from equipment expected to be installed in the future (i.e., post-program savings) due to activities undertaken during the program years 2000-2002, as required by the DTE Guidelines at

[4] The Company stated that the programs are cost-effective without including participant benefits (Exh. DTE-1-9).

§ 4.2.1(b) (Exh. DTE-1-13). Rather, the Company is awaiting the results of a statewide analysis of the benefits of these statewide or regional programs (id.).

The Company reported that, using the total resource cost test required by the Department, all of its programs are cost-effective in the first year and over the lives of the programs (Plan at 3). DTE Guidelines at § 3. In particular, as shown in Table 1 attached to this Order, the Company estimated benefit/cost ("B/C") ratios for individual programs that range from 1.1 to 3.0 for year 2000 programs and from 1.0 to 2.9 for the 2000-2002 program years as a whole (Plan, Table 6). However, in 2001 and 2002, B/C ratios fall below 1.00 for the Municipal program, where B/C ratios are projected to be 0.99 for 2001, and 0.91 for 2002, and for the heat pump water heater program, with B/C ratios of 1.01 for 2001 and 0.99 for 2002 (Exh. DTE-3-1).

The Company reported actual prices for electricity, natural gas, and heating oil in late 2000 and early 2001 (Exhs. DTE-1-11, DTE-1-12). Actual electricity prices were up to 77 percent higher than the price projections used in the Plan to calculate program benefits for 2000 and 2001, while actual prices for heating oil and natural gas averaged 36 percent and 42 percent higher than the price projections used in the Plan to calculate program benefits for the Energy Smart program (Exhs. DTE-1-11, DTE-1-12, DTE-2-7). Using the actual resource prices for late 2000 and early 2001 in place of its projected prices, the Company stated that the actual benefits from its programs, especially for the Energy Smart program, which saves heating oil and natural gas in addition to electricity, would exceed those stated in the Plan (Exhs. DTE-1-11, DTE-1-12).

C. Competitive Procurement

The Company reported that it out-sources all of its program implementation and miscellaneous activities and competitively procures all of its marketing, market research, and evaluation activities that are out-sourced (Exh. DTE-1-3). The Company notes that in some programs, participating customers procure energy efficiency services and equipment themselves, generally using competitively procured vendors and subject to all of the elements of an open, competitive market place (Exh. DTE-1-4). However, the Company conducts program planning and administration in-house, in order to fulfill its responsibility to develop program plans and manage program implementation (Exh. DTE-1-3). Out-sourcing accounts for 94 percent of the Company's low-income program expenses (id.). Low-income programs are delivered by local community action agencies, as required by G.L. c. 164, § 1F, but the Company competitively procures much of the equipment they deliver and encourages the agencies to competitively procure the rest (id.). The Company notes that costs for outside services in the residential new construction program cost substantially more than the same services provided in-house by Connecticut Power and Light Company (Exh. DTE-1-4).

IV. ANALYSIS AND FINDINGS

The Company provided expected B/C ratios for its proposed programs for the years 2000-2002, showing that all but three B/C ratios are greater than 1.00. When the benefits of programs exceed the costs, the programs are cost-effective. DTE Guidelines at § 3.5. The Department reviewed the method by which the Company determined the benefits and costs for its programs and finds that the benefits and costs were determined consistent with Department criteria for establishing program cost-effectiveness (DTE Guidelines at §§ 3-4), except that the Company did not include post-program savings in its calculation of benefits from market transformation programs. D.T.E. Guidelines at § 4.2.1(b).

The Department notes that the benefits of the Company's programs are likely to exceed the Company's estimates. First, the Company has not claimed the benefits of post-program savings for market transformation programs. Second, the benefits of avoided electricity, natural gas, and heating oil are higher than the Company claimed in its Plan, because the actual prices for these resources were up to 77 percent higher in late 2000 than the prices the Company used to calculate benefits for the program years 2000 and 2001. Third, the Company has not claimed quantifiable participant benefits for six of its programs, including the Municipal program.[5]

The Department finds that if the Company had included participant benefits for the Municipal program and if it used more recent electricity prices for its programs, notably the Municipal and heat pump water heater programs, their B/C ratios would exceed 1.00 for the program years when they at first appear to be slightly below 1.00. The rest of the programs appear cost-effective even using the Company's assumptions. Therefore, the Department finds that the Company's programs are cost-effective.

The Company provided evidence that it out-sources all of its program implementation and miscellaneous activities and competitively procures all of its marketing, market research,

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5 The Company stated that the programs are cost-effective without including participant benefits (Exh. DTE-1-9).

and evaluation activities that are out-sourced, and that it allows some participating customers to procure efficiency services and equipment themselves in the competitive market. The Company also showed that it complied with the requirements of G.L. c. 25, § 19 for low-income programs, even while it encouraged the agencies charged with administering those funds to use competitive procurement. At the same time, the Company conducted most program planning and administration internally to ensure effective program oversight. Accordingly, the Department finds that the Plan provides for competitive procurement to the fullest extent practicable.

The Department approves the Company's Energy Efficiency Plan for the years 2000-2002, because the DOER Report concluded that the Plan is substantially consistent with the statewide energy efficiency goals, and because the Department found above that the programs are cost-effective and use competitive procurement to the fullest extent practicable.

In order to improve the accuracy of the Company's cost-effectiveness analyses, the Department directs the Company, in its Energy Efficiency Annual Report, to: (1) include post-program savings in its calculation of benefits from market transformation programs, consistent with DTE Guidelines at §§ 4.2.1(b), 4.2.2(b); and (2) use, to the extent reasonable, actual prices for past program years and best available price projections for future program years, in its calculation of program benefits from saving electricity, natural gas, and heating oil. The Company should also quantify participant benefits. However, to the extent that the Company bases its performance incentives on actual benefits achieved, the Company shall calculate program benefits using the same resource prices and the same treatment of post-program savings used in setting the performance goals on which the incentives are based. DTE Guidelines at § 5.

Since the Plan provides specific performance incentive goals only for 2000, the Department directs the Company to file within sixty days of issuance of this Order an updated budget and specific performance incentive goals for 2001 programs, and to file in the first quarter of 2002 an updated budget and specific performance incentive goals for 2002 programs.

V. ORDER

Accordingly, after due notice, opportunity for public comment, and consideration, it is hereby

ORDERED: That the Petition of Western Massachusetts Electric Company for approval of its three-year energy efficiency program is APPROVED; and it is

<u>FURTHER ORDERED</u>: That Western Massachusetts Electric Company shall comply with all directives contained in this Order.

By Order of the Department,

James Connelly, Chairman

W. Robert Keating, Commissioner

Paul B. Vasington, Commissioner

Eugene J. Sullivan, Jr., Commissioner

Deirdre K. Manning, Commissioner

Appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part.

Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. (Sec. 5, Chapter 25, G.L. Ter. Ed., as most recently amended by Chapter 485 of the Acts of 1971).

TABLE 1. Budgets ($000) and Benefit/Cost Ratios, as Filed

	2000		2001		2002	
	Budget	B/C	Budget	B/C	Budget	B/C
Residential						
New Construction (Energy Star Homes)	680	0	710	*	776	*
In-Home Services programs						
Residential Conservation Services	369		352		353	
Spectrum (electric heat)	387	1.4	316	1.34	206	1.09
Products and Services						
HPWH (Hot Shot)	236	1.2	116	1.01	116	0.99
Smart living Catalog	470	1.8	394	1.53	340	1.60
Retail Lighting	286	*	274	*	273	*
Tumble Wash	396	*	230	*	121	*
Energy Star Appliances	88	*	197	*	198	*
Other	327		320		204	
Subtotal Residential	3,240	1.6	2,910		2,587	
Low-income						
In-Home Services	1,187	2.8	959	2.83	952	2.84
Other	119		119		82	
Subtotal Low Income	1,306	2.8	1,078		1,034	
Commercial / Industrial						
New Construction	945	3.0	795	2.84	794	2.75
Retrofit Programs						
RFP	2,368	1.3	1,939	1.26	1,937	1.22
Municipal	824	1.1	657	0.99	547	
Small C&I	572	2.0	547	1.99	547	1.93
Products and Services						
Custom Services	2,501	3.0	1,348	2.39	1,345	
Express Services	601	3.0	574	2.94	574	2.83
Operation & Maintenance	1,414	2.7	478	1.72	40	-
Other	1,102		776		496	
Subtotal Commercial/Industrial	10,325	2.1	7,114		6,279	
TOTAL BUDGET	14,870	2.1	11,102		9,990	

Source: Plan, Tables 2 and 6; Exh. DTE-3-1

* These programs are being analyzed on a state-wide basis. WMECo has not yet filed these B/C ratios.

"Other" represents expenditures for administration, planning and evaluation, collaborative, DOER research, and data processing.